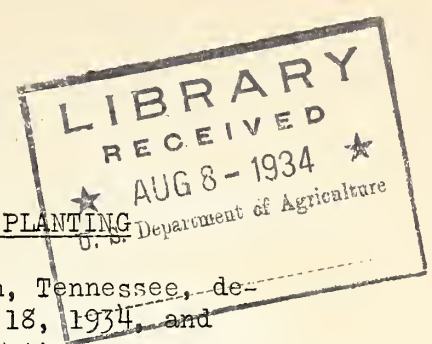


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CHECKING EROSION IN TENNESSEE THROUGH TREE PLANTING



A radio talk by H. S. Nichols, State Agent, Jackson, Tennessee, delivered in the Land-Grant College Radio Hour, July 18, 1934, and broadcast by a network of 48 associate NBC radio stations.

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Ladies and Gentlemen of the Radio Audience:

Practically every man, woman and child in the United States, regardless of profession, is interested in the subject of soils, soil fertility, soil erosion, etc. The reason that all are interested is, that we are largely an agricultural nation. Our lands must be the backbone of our prosperity. Statements and figures given in this talk, apply directly to Tennessee, but will apply largely to each state in the Union.

We are appalled when we are told by Mr. H. H. Bennett, recognized government authority, that 400,000,000 tons of silt from lands weakened and washed by erosion, are discharged into the sea each year by the Mississippi river. Tennessee, and particularly West Tennessee, contributes her share to this enormous loss. In this state, which stands near the top as an agricultural state, we estimate that one-half million acres of farm lands have been eroded to a point which renders them unfit for agricultural purposes. In addition to this, there are probably one million acres of land which should not have been cleared, and are now eroded to a point where profitable agriculture cannot be practiced.

This gives you an idea of the seriousness of the situation, as what is true of Tennessee, is true to a greater or lesser degree, of all states.

Erosion, or soil washing, has been described as sheet erosion and gully erosion. The incipient stage of washing, scarcely noticeable, is called sheet erosion. Gully erosion is the cutting by the water of channels and gullies in the soil. Cultivated fields, unprotected from erosion, commonly lose from 35 to 40 tons of soil an acre annually. Six inches or more of top soil have been washed off of many cultivated fields in one generation of farm life.

How to prevent this heavy national loss and the place of trees in this prevention, is the question under discussion. At the Holly Springs, Miss., Experiment Station, Branch Station of the Southern Forest Experiment Station, during the winter 1931-32, the following facts were found. During 70 days of this winter, 27 inches of rain fell, of which 62% ran off the surface of a cultivated corn field, and 54% ran off the barren soil of an abandoned field, while less than one-half of one percent ran off the surface of a virgin oak forest, and only 2% from a scrub oak covered plot. The black, or yellow locust, might be termed the "miracle tree" in control work because it is a legume and also a soil binder, and its mass of fibrous roots penetrate many feet outward, even during the first growing season. Short leaf, and loblolly pines, are used advantageously in such work, also.

Erosion control by means of trees, especially locust, was initiated in Tennessee in 1914 by R. S. Maddox, formerly State Forester, and for fifteen years he, with the assistance of the county agents, established many out-

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standing demonstrations. From this small beginning in 1914, many thousands of acres have been planted to trees. Five C.C. Camps in West Tennessee have reclaimed approximately 2000 acres since April of last year. During that time 450 acres have been set to trees by small farmers in that limited area. The T.V.A., aided by the C.C. camps, have set 2,673,000 trees in the vicinity of the Norris Dam since last November. The State Nursery, under the State Department of Agriculture, has an output of 1,000,000 seedlings annually. These are sold to farmers at about \$1.50 per 1000. In addition to the State nursery, the Madison County C.C. Camp nursery will produce approximately 20,000,000 seedlings this year. These trees will be planted on erosion projects without cost to the land owners.

I have tried in this short while to give you a few facts as to the seriousness of soil erosion, the types of erosion, and what is being done in Tennessee to prevent this erosion by means of planting trees. The County Agricultural Agents, the State Department of Agriculture through the State Forester, the C.C.C. Camps and the T.V.A. are cooperating in an effort to prevent the loss of our most valuable asset - the soil.

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